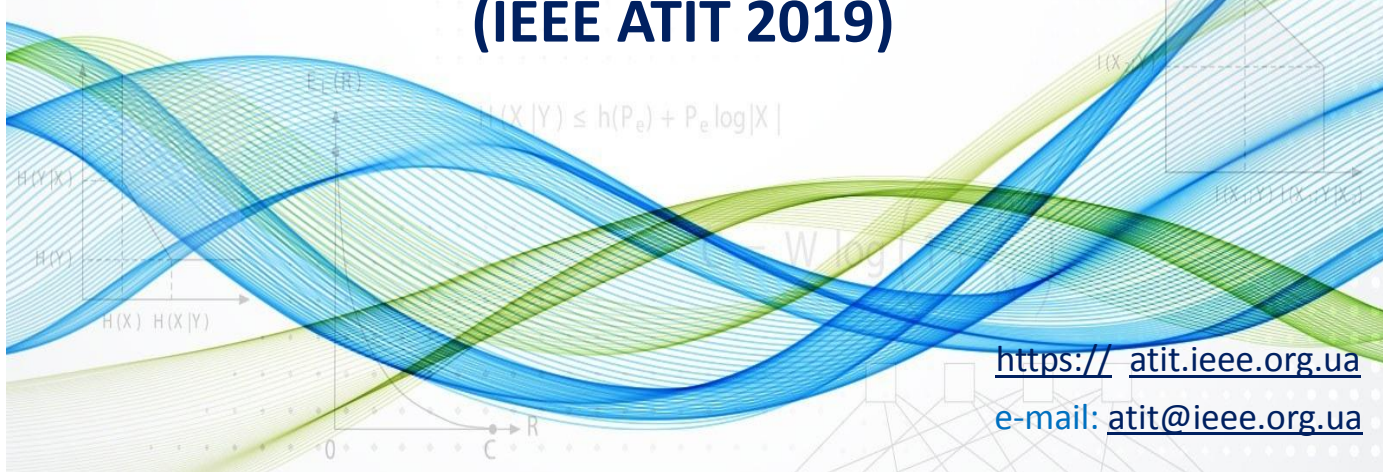




2019 IEEE International Conference on Advanced Trends in Information Theory (IEEE ATIT 2019)



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CONFERENCE PROGRAM



18.12.19-20.12.19

Kyiv

Ukraine

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- IEEE Ukraine Section Information Theory Society Chapter.
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- Ivan Kozhedub Kharkiv National University of Air Force, Ukraine.
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- Prof. Sergii Subbotin, National University "Zaporizhzhia Polytechnic", Ukraine.
- Prof. Valeriy Danilov, NTU Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
- Prof. Stepan Shkilniak, Taras Shevchenko National University of Kyiv, Ukraine.
- Prof. Petro Bidyuk, NTU Igor Sikorsky Kyiv Polytechnic Institute, Ukraine.

- Dr. Dmitry Gololobov, Taras Shevchenko National University of Kyiv, Ukraine.
- Prof. Oleh Berezsky, Ternopil Nationale Economical University, Ternopil, Ukraine.
- Prof. Sergiy Bronin, Taras Shevchenko National University of Kyiv, Ukraine.
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- Dr. Oleg Khorozov, Glushkov Institute of Cybernetics of NAS of Ukraine, Ukraine.
- Associate Prof. Andriy Shatyрко, Taras Shevchenko National University of Kyiv, Ukraine.
- Associate Prof. Viktor Krasnoshchok, Taras Shevchenko National University of Kyiv, Ukraine.
- Associate Prof. Oleksandr Kuchansky, Taras Shevchenko National University of Kyiv, Ukraine.
- Prof. Oleksandr Barmak, Khmelnytskyi National University, Khmelnytskyi, Ukraine.
- Prof. Dmytro Lande, Head of Department, Institute of Information Recording NAS of Ukraine, Kyiv, Ukraine.
- Prof. Volodymyr Lytvynenko, Head of Department, Kherson National Technical University, Ukraine.
- Prof. Romanas Tumasonis, Doctor of Engineering Science, Vilniaus kolegija, Elektronikos ir infomatikos fakultetas, Full Professor, Vilnius, Lithuania.

LOCAL ORGANIZING COMMITTEE

- Iryna Volchina, Taras Shevchenko National University of Kyiv, Ukraine.
- Oksana Stadnyk, Taras Shevchenko National University of Kyiv, Ukraine.
- Maria Loseva, Taras Shevchenko National University of Kyiv, Ukraine.
- Anastasiia Dubnytska, Taras Shevchenko National University of Kyiv, Ukraine.
- Tetiana Sobol, Taras Shevchenko National University of Kyiv, Ukraine.
- Taras Zinko, Taras Shevchenko National University of Kyiv, Ukraine.

CONFERENCE SECTIONS

18th December 2019

9.00 - 10.00 – Registration (*Assembly Hall, Institute of Continuing Education of Taras Shevchenko National University of Kyiv, Vasylkivska Str., 36, Kyiv*).

10.00-11.30 – Opening of conference. Plenary reports / Part 1 (*Assembly Hall, Institute of Continuing Education*).

Moderators:

Prof. Anatoly V. Anisimov, Taras Shevchenko National University of Kyiv, Ukraine.

Prof. Oleksandr Yudin, Taras Shevchenko National University of Kyiv, Ukraine.

10:00 - 10:30	<i>Optimization of functions of two variables by deformed stars method</i>	Prof. Vitaliy Snytyuk, Taras Shevchenko National University of Kyiv, Ukraine
10:30 - 11:00	<i>The information technology infrastructure: models, methods and technologies of design, management and use</i>	Prof. Sergii Telenyk. Igor Sikorsky Kyiv Polytechnic Institute, Ukraine.
11:00 - 11:30	<i>Comp. Samsung: On-Cloud vs On-Device: trends and challenges of AI in consumer electronics domain</i>	Andriy Fisunenکو, PhD, Vice President in R&D, Samsung Research & Development Institute Ukraine

11.30-12.00 – Coffee break.

12.00-14.00 – Plenary reports / Part 2 (*Assembly Hall, Institute of Continuing Education*).

Moderators:

Prof. Anatoly V. Anisimov, Taras Shevchenko National University of Kyiv, Ukraine.

Prof. Oleksandr Yudin, Taras Shevchenko National University of Kyiv, Ukraine

12:00 - 12:30	<i>Splittable Data Compression Codes</i>	Prof. Anatoly V. Anisimov, Prof. Igor Zavadskyi. Taras Shevchenko National University of Kyiv, Ukraine.
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12:30 - 13:00	<i>Innovative ICT solutions and the future ecosystem. Sharing the best practices based on the pilot system approach introduced within the Elk Branch Campus of the University of Warmia and Mazury in Olsztyn</i>	Prof. Wojciech Guzewicz, A.Prof. Piotr Gawliczek, Uniwersytet Warmińsko-Mazurski w Olsztynie, Poland
13:00 - 13:30	<i>Comp. Saycom: New industry philosophy is a new science. X-Machine</i>	Olga Filipova , Commercial Director Comp. Saycom
13:30 - 14:00	<i>Visualize what to be coded before programming!</i>	Prof. Stig Ottosson, Norwegian University of Science and Technology, Gjovik, Norway

14.00-14.45 – Lunch break

14.45-17.30 – Parallel working Tracks groups.

Track 1

14.45-17.30 – Track 1 (*Institute of Continuing Education of Taras Shevchenko National University of Kyiv, Vasylykivska Str., 36, Kyiv, room 113*).

Moderators:

Prof. Anatoly V. Anisimov, Taras Shevchenko National University of Kyiv, Ukraine.

Prof. Volodymyr Barannik, Ivan Kozhedub Kharkiv National Air Force University, Ukraine.

Secretary:

Dr. Olena Kapustian, Taras Shevchenko National University of Kyiv, Ukraine.

Dr. Veda Kasianiuk, Taras Shevchenko National University of Kyiv, Ukraine.

Track ID - 1	Track Title	Author	Number of accepted papers
	Source Coding and Data Compression		
Tr.1.1	The Formulation and Solution of the Task of the Optimum Reservation in the System of Residual Classes	Victor Krasnobaev, Kateryna Kuznetsova, Sergey Koshman, Anna Kononchenko, Tetiana Kuznetsova	57

Tr.1.2	Evaluation the Potential Performance of the DCT-Transformants Non-Equilibrium Positional Encoding Method	Vadym Fustii, Dmitry Barannik, Vitaliy Tverdokhlebo, Igor Shevchenko, Dmytro Havrylov, Oleksandr Slobodyanyuk	61
Tr.1.3	Examples of Usage of Method of Data Errors Correction which are Presented by the Residual Classes	Victor Krasnobaev, Kateryna Kuznetsova, Victoria Popenko, Tetiana Kuznetsova	59
Tr.1.4	Developing a Method of Composing Key Components of a Video Image Based on the Integration of Their Code Structures	Vladimir Barannik, Yuriy Ryabukha, Maksym Parkhomenko, Oleksandr Dodukh Anna Hahanova Anton Sorokun	62
Tr.1.5	Two-Hierarchical Scheme of Statistical Coding of Information Resource Data with Quantitative Clustering	Vladimir Barannik, Ivan Tupitsya, Sergy Sidchenko, Valeriy Barannik, Oleg Kulitsa, Iryna Gurzhii	65
Tr.1.6	Randomness of Quantum Random Bit Generators	Dmitriy Klyushin	81
Tr.1.7	Splittable Data Compression Codes	Anatoly V. Anisimov, Igor Zavadskyi	85
Tr.1.8	Refactoring as a Technique for Transformation IMS-Queries into SQL-Queries	Petro Kuliabko, Vasyl Tereshchenko, Yaroslav Tereshchenko, Veda Kasianiuk	101
Tr.1.9	Verifiable Arithmetic Computations Using Additively Homomorphic Tags	Anatoly V. Anisimov, Andrey Novokshonov	137
Tr.1.10	Processing Technique of Weighted Data to Improve Assessment of Latent Information	Sergiy Radchenko, Oleg Naguliak, Iryna Netreba, Yuri Suleimanov, Oleksandr Sudakov Oleksandr Lefterov	172

Tr.1.11	Decoding Technology for Compressed Videodata in Infocommunication Systems	Victoriya Himenko, Natalia Korolyova, Albert Lekakh, Victoria Dymchuk, Dmytro Zhuikov, Roman Puhachov	209
Tr.1.12	Approximate Estimation of Functionals of the Solutions of Parabolic Equation Under Nonlinearity in Output	Olena Kapustian, Oleksandr Nakonechnyi	176
Tr.1.13	Efficiency Assessment of the Steganographic Coding Method with Indirect Integration of Critical Information	Olha Suprun, Oleksandr Yudin, Ruslana Ziubina, Serhii Buchyk , Oleg Frolov Natalia Barannik	49 <i>poster</i>
Tr.1.14	Signal Processing in the Restructuring of a Computer System Bandpass Frequency-Dependent Component to Eliminate the Internal Combustion Engine Detonation	Hanna Ukhina, Valerii Sytnikov, Pavel Stupen, Oleh Strelcov, Iryna Yakovleva	72 <i>poster</i>
Tr.1.15	Data compression based on coding methods with a controlled level of quality loss	Oleksandr Yudin, Yuliia Boiko, Ruslana Ziubina, Serhii Buchyk, Vitaliy Tverdokhlebo, Svitlana Beresina	120 <i>poster</i>
Tr.1.16	Statistical Simulation of the Information Warfare	Oleksandr Nakonechnyi, Olena Kapustian, Anatoliy Pashko, Iuliia Shevchuk, Taras Zinko	130 <i>poster</i>
Tr.1.17	Transformer timer coding technology	Oleksandr Derevianchenko, Evgen Osadchyy, Vasyl Tereshchenko, Oleh Horbunov, Volodymyr Osadchyy	162 <i>poster</i>
ACCEPTED PAPERS, TOTAL		17	
SUBMITTED PAPERS, TOTAL		23	
ACCEPTANCE RATE		0.74	

14.45-17.30 – Parallel working Tracks groups.

Track 3

14.45 - 17.30 – Track 3 (*Institute of Continuing Education of Taras Shevchenko National University of Kyiv, Vasylkivska Str., 36, Kyiv, **room 114***).

Moderators:

Prof. Oleksandr Oksiiuk, Taras Shevchenko National University of Kyiv, Ukraine.

Prof. Oleksandr Yudin, Taras Shevchenko National University of Kyiv, Ukraine.

Dr. Oleksandr Kalenchenko, Taras Shevchenko National University of Kyiv, Ukraine.

Secretary:

Prof. Serhii Buchyk, Taras Shevchenko National University of Kyiv, Ukraine.

Prof. Serhii Toliupa, Taras Shevchenko National University of Kyiv, Ukraine.

Ass. Yanina Shestak, Taras Shevchenko National University of Kyiv, Ukraine.

Track ID - 3	Track Title Information Theory and Technologies security.	Author	Number of accepted papers
Tr.3.1	Research of Information Protection System of Corporate Network Based on GNS3	Bogdan Korniyenko, Liliya Galata, Lesya Ladieva	3
Tr.3.2	Typology of the Model of Integrated Sectoral Information System of the National Cyber Security Management	Lada Slipachuk, Volodymyr Nakonechnyi	36
Tr.3.3	Synthesis of an Expert System for Assessing the Security of Computer Networks Based on a Fuzzy Neural Network	Yurii Gunchenko, Larysa Komarova, S.A. Shvorov, Evgeny Lienkov, Svitlana Kuznichenko, Andrii Shvorov	40

Tr.3.4	Code-based Pseudorandom Generator for the Post-Quantum Period	Aleksandr Kuznetsov, Anastasiia Kiian, Yurii Gorbenko, Oleksii Smirnov, Oleksandr Cherep, Liliia Bexhter	53
Tr.3.5	The model of threats to information and psychological security, taking into account the hidden information destructive impact on the subconscious of adolescents	Vladimir Barannik, Tatyana Belikova, Pavlo Gurzhii	63
Tr.3.6	Intrusion Detection Based on Maching Learning Using Fractal Properties of Traffic Realizations	Tamara Radivilova, Lyudmyla Kirichenko, Dmytro Ageyev, Maksym Tawalbeh, Vitalii Bulakh, Petro Zinchenko	69
Tr.3.7	Smart City Cybersecurity Projects Financing Model in Case of Description of Investors Resources with Fuzzy Sets.	Valeriy Lakhno, Yurii Matus, Volodymyr Malyukov, Alyona Desyatko	104
Tr.3.8	Analyses Security of Rootkit Detection Methods	Ievgeniia Kuzminykh, Maryna Yevdokymenko	174
Tr.3.9	Enhanced Solution of the Disjoint Paths Set Calculation for Secure QoS Routing	Oleksandr Lemeshko, Oleksandra Yeremenko, Maryna Yevdokymenko, Batoul Sleiman	179

Tr.3.10	Software Application for Biometrical Person's Identification by Portrait Photograph Based on Wavelet Transform	Oleksii Bychkov, Kateryna Merkulova, Yelyzaveta Zhabska	190
Tr.3.11	Model of Functioning Data-Transfer Systems Special Purposes Taking into Account the Influence of Cyber Attack	Yurii Gunchenko, Sergey Lienkov, Vitaliy Loza, Svitlana Kuznichenko, Evgeny Lienkov, Larysa Komarova	38 <i>poster</i>
Tr.3.12	Block encryption algorithm for digital information using open keys for selfgeneration of closed random private keys	Genadiy Zhyrov, Sergey Lienkov, Ihor Pampukha, Ivan Chetverikov	50 <i>poster</i>
Tr.3.13	Pseudorandom Sequences with Multi-Level Correlation Function for Direct Spectrum Spreading	Alexandr Kuznetsov, Anastasiia Kiiian, Kateryna Kuznetsova, Mihael Zub, Yevhena Zaburmekha, Elena Lyshchenko	55 <i>poster</i>
Tr.3.14	Low-resource Convolution Neural Network for Keyboard Recognition of the User	Serhii Toliupa, Liudmyla Tereikovska, Oleksandr Korystin, Denys Chernyshev, Ihor Tereikovskyy	79 <i>poster</i>
Tr.3.15	The method of detection of hidden information in a digital image using steganographic methods of analysis	Oleksandr Yudin, Yaroslav Symonychenko, Anna Symonychenko	86 <i>poster</i>
Tr.3.16	The approach to automated internet monitoring system creation	Petro Snitsarenko, Yurii Mikhieiev, Volodymyr Nakonechnyi, Vitalii Hrytsiuk, Volodymyr Saiko	112 <i>poster</i>

Tr.3.17	Parameter definition for multilayer perceptron intended for speaker identification	Ihor Tereikovskiy, Ihor Subach, Oleh Tereikovskiy, Liudmyla Tereikovska, Serhii Toliupa, Volodymyr Nakonechnyi	138 <i>poster</i>
Tr.3.18	Information Support is an Integral Part Public Administration Systems: Essence and Meaning	Yuri Sarychev	164 <i>poster</i>
Tr.3.19	Reliability of Redundant Telecommunications Equipment Advanced Model Considering Failures and Refusals of Structure Elements	D. Mogylevych, Iryna Kononova, B. Kredentser, O. Oksiiuk	182 <i>poster</i>
Tr.3.20	The Testing of Pseudorandom Sequence of Small Length as a Component of the Internet of Things Security	Svitlana Popereshnyak	214 <i>poster</i>
ACCEPTED PAPERS, TOTAL		20	
SUBMITTED PAPERS, TOTAL		28	
ACCEPTANCE RATE		0.71	

18.00-20.00 – Welcome Party (Canteen, Institute of Continuing Education of Taras Shevchenko National University of Kyiv, Vasylkivska Str., 36, Kyiv)

19th December 2019

10.00-19.00 – Parallel working Tracks groups.

11.30-12.00 – Coffee break.

14.00-15.00 – Lunch break.

16.30-17.00 – Coffee break.

Track 2

10.00 - 19.00 – **Track 2** (*Institute of Continuing Education of Taras Shevchenko National University of Kyiv, Vasylkivska Str., 36, Kyiv, **room 114***).

Moderators:

Prof. Yurii V. Kravchenko, Taras Shevchenko National University of Kyiv, Ukraine.

Prof. Serhii D. Pogorilyy, Taras Shevchenko National University of Kyiv, Ukraine.

Secretary:

Artem Kramov, Taras Shevchenko National University of Kyiv, Ukraine.

Track ID - 2	Track Title	Author	Number of accepted papers
Tr.2.1	Network model of it-infrastructure resource management	Sergiy Kryvvi Sergiy Pogorilyy Yuriy Boyko	27
Tr.2.2	Overlay Network Infrastructure for Remote Control of Radio Astronomy Observatory	Vitalii Tkachov Maksym Bondarenko Oleg Ulyanov Oleksandr Reznichenko	30
Tr.2.3	3D face model reconstructing from its 2D images using neural networks	Oleksandra Aleksandrova Yevhen Bashkov	33

Tr.2.4	Development of recommendations for ensuring security in a corporate network	Olena Starkova Kostiantyn Herasymenko Sergii Korotin Volodymyr Afanasiev Anastasiia Lisnyk	44
Tr.2.5	Outer Space Monitoring System: Purpose, Tasks, Structure and approaches to trajectory processing	Mykhailo Rakushev Serhii Kovbasiuk Oleksandr Permiakov Oleksandr Lavrinchuk	45
Tr.2.6	Analytical aspects of providing a feature of the functional stability according to the choice of technology for construction of wireless sensor networks	Andrii Sobchuk Yurii Kravchenko Maksym Tyshchenko Piotr Gawliczek Olesia Afanasieva	47
Tr.2.7	Performance of Hash Algorithms on GPUs for Use in Blockchain	Aleksandr Kuznetsov Kyryl Shekhanin Andrii Kolhatin Diana Kovalchuk Vitalina Babenko Iryna Perevozova	54
Tr.2.8	Using Ring Signatures For An Anonymous E-Voting System	Oleksandr Kurbatov Pavel Kravchenko Nikolay Poluyanenko Oleksiy Shapoval Tetiana Kuznetsova	60
Tr.2.9	Utilization of Clipper Circuits to Improve Efficiency of the Gradient Signal Processing Algorithm for Adaptive Antenna Arrays	Oleksandr Pliushch Viktor Vyshnivskiy Serhii Toliupa Anatolii Rybydajlo	71
Tr.2.10	Subjective-probability approach to design an expert system for assessment of states of complex systems in conditions of non-regular destructive influences	Viktor Bondarenko	89
Tr.2.11	Social Risk Assessment Mechanism Based on the Neural Networks	Vadym Mukhin Yaroslav Kornaga Valerii Zavgorodnii Anna Zavgorodnya Oksana Herasymenko Oleg Mukhin	106

Tr.2.12	Problem of choosing a DBMS in modern information systems	Pavel Openko, Spartak.Hohoniants, Olena Starkova, Kostiantyn Herasymenko, Mykola Yastrebov, Andrii Prudchenko	147
Tr.2.13	Implementation the protection method of data transmission in network	Galina Kirichek Dmytro Kyrychek Svitlana Hrushko Artur Timenko	11 <i>poster</i>
Tr.2.14	Evaluating the effectiveness of cloud services	Yuri Kravchenko, Olga Leshchenko, Nataliia Dakhno, Oleksandr Trush, Oleksandr Makhovych	15 <i>poster</i>
Tr.2.15	Mathematical model of meteorological software for systematic flood control in the carpathian region	Anatoliy Rokochinskiy, Pavlo Volk, Lyudmyla Kuzmych, Vasyl Turcheniuk, Liubov Volk, Andriy Dudnik	20 <i>poster</i>
Tr.2.16	Application of a Fourier series for an analysis of a network signals	R. Tovkach Yu. Kharkevych I.Kal'chuk	42 <i>poster</i>
Tr.2.17	Increasing the fault tolerance of distributed systems for the Hyper de Bruijn topology with excess code	Heorhii Loutskii Artem Volokyta Pavlo Rehida Oleksandr Honcharenko Bohdan Ivanishchev Artem Kaplunov	143 <i>poster</i>
Tr.2.18	Dynamic Model of Cyber Defense Diagnostics of Information Systems With The Use of Fuzzy Technologies	Olexandr Laptiev German Shuklin Spartak Hohonianc Amina Zidan Ivanna Salanda	188 <i>poster</i>
Tr.2.19	Improving the noise immunity of the inter-satellite communication line of the leo-system with the architecture of the "distributed satellite"	Volodymyr Saiko Volodymyr Domrachev Dmitry Gololobov	205 <i>poster</i>

Tr.2.20	Smart Payload Management in Edge Nodes of Optical Label Switching Networks	Volodymyr Andrushchak Mykola Kaidan Taras Maksymyuk Mykhailo Klymash	212 <i>poster</i>
Tr.2.21	GIS-technologies using for spatial data analyse of the road traffic accidents	Olena Verenysh Sergiy Bezshapkin Ihor Vasyliiev Danylo Verenysh	131 <i>poster</i>
ACCEPTED PAPERS, TOTAL		21	
SUBMITTED PAPERS, TOTAL		36	
ACCEPTANCE RATE		0.58	

Track 4

10.00 - 19.00 – Track 4 (*Institute of Continuing Education of Taras Shevchenko National University of Kyiv, Vasylkivska Str., 36, Kyiv, Assembly Hall*).

Moderators:

Prof. Valentyna L. Pleskach, Taras Shevchenko National University of Kyiv, Ukraine.

Dr. Viktoriia Mironova, Taras Shevchenko National University of Kyiv, Ukraine.

Secretary:

Associate Prof. Liudmyla Zubyk, Taras Shevchenko National University of Kyiv, Ukraine.

Associate Prof. Oleksandr Brovarets, Taras Shevchenko National University of Kyiv, Ukraine.

Associate Prof. Oleksii Kolesnikov, Taras Shevchenko National University of Kyiv, Ukraine.

Track ID – 4	Track Title	Author	Number of accepted papers
Tr. 4.1	Cloud resource management with a hybrid virtual machine consolidation approach	Eduard Zharikov Sergii Telenyk Oleksandr Rolik Yevhenii Serdiuk	18
Tr. 4.2	Visualize what to be coded before programming	Vladimir Zaslavskyi, Stig Ottosson	216
Tr.4.3	The application of distributed information systems based on blockchain technologies in higher education: benefits and challenges for Ukraine	Oleh A. Zaiarnyi Inna Zaiarna	203

Tr.4.4	E-trade management system architecture	Oleg Pursky, Anna Selivanova, Oleksandr Kharchenko, Pavlo Demidov, Volodymyr Kulazhenko	87
Tr.4.5	Specialized processors automatic design tools – the basis of self-configurable computer and cyber-physical systems	Viktor Melnyk Anatoliy Melnyk	136
Tr.4.6	The "Divide and Conquer" technique to solve the minimum area polygonalization problem	Vasyl Tereshchenko Maksym Osiponok	154
Tr.4.7	Neural network approach to forecasting of IT service quality	Oleksandr Rolik, Valerii Kolesnik, Volodymyr Samotyy	35
Tr.4.8	Modeling of the e-commerce impact on the employment in EU	Tetiana Zatonatska, Olha Fedirko	70
Tr.4.9	Modelling and simulation of the thermal performance of metal framed walls	Olena Kuznietsova, Igor Panasiuk, Liudmyla Akimova	198
Tr.4.10	Utilization of information technologies in higher education	Hlib Polianovskyi, Tetiana Zatonatska, Ihor Liutyi	181
Tr.4.11	Information Model Development by the Polypropylene Filtering Elements Forming Technological Process Description.	Svitlana Popereshnyak, Anastasiya Vecherkovskaya	161
Tr.4.12	Modern information technologies in HRM: concept of personnel security	Dmytro Zatonatskiy, Tetiana Dluhopolska, Oleksandr Rozhko, Nataliia Tkachenko, Tetiana Stechyshyn, Olga Metlushko	52 <i>poster</i>
Tr.4.13	Information security management system in distributed information systems	Maria Pleskach, Valentyna Pleskach, Olena Zelikovska	199 <i>poster</i>

Tr.4.14	Ship route clustering in the information and telecommunication system of the Maritime Border Guard	Mykhailo Strelbitskyi, Valentyn Mazur, Andrii Karpushyn	110 <i>poster</i>
Tr.4.15	Study of methods of complex data analysis that based on machine learning technologies	Anastasiia Ivanytska, Liudmyla Zubyk, Dmitry Ivanov, Kateryna Domracheva	171 <i>poster</i>
Tr.4.16	The system dynamic control of the water erosion in a hydrotechnical rampart-terrace	Iryna Vergunova	210 <i>poster</i>
ACCEPTED PAPERS, TOTAL		16	
SUBMITTED PAPERS, TOTAL		41	
ACCEPTANCE RATE		0.37	

Track 5\P1

10.00 - 19.00 – Track 5\P1 (*Institute of Continuing Education of Taras Shevchenko National University of Kyiv, Vasylykivska Str., 36, Kyiv, room 113*).

Moderators:

Prof. Yuri V. Krak, Taras Shevchenko National University of Kyiv, Ukraine.

Prof. Anatolii Pashko, Taras Shevchenko National University of Kyiv, Ukraine.

Secretary:

Associate Prof. Oleg Khorozov, Glushkov Institute of Cybernetics of NAS of Ukraine, Ukraine.

Associate Prof. Andriy Shatyрко, Taras Shevchenko National University of Kyiv, Ukraine.

Track ID – 5\P1	Track Title	Author	Number of accepted papers
Tr. 5\P1.1	The use of static Bayesian networks for situational modeling of national economy competitiveness	Mariia Voronenko Olga Romanko Nataliia Savina Iryna Zhorova Wójcik Waldemar Volodymyr I. Lytvynenko	158

Tr. 5\P1.2	Using Bayesian methods for predicting the development of children autism	Mariia Voronenko, Volodymyr I. Lytvynenko, Iryna Lurie, Oleg Boskin, Ulzhalgas Zhunissova, Roman Baranenko	217
Tr. 5\P1.3	Coreference Resolution Method Using a Convolutional Neural Network	Artem Kramov Sergiy D. Pogorilyy	5
Tr. 5\P1.4	Intellectualization of computation for mathematical modeling by using neural networks	Alexander Khimich, Volodymyr Sydoruk, Pavlo Yershov	211
Tr. 5\P1.5	Face image transformations for correct recognition problems solving	Iurii Krak Mykola Svirnevskyyi Olexander Barmak Sergiy Ivaschenko	215
Tr. 5\P1.6	Grammar Error Correcting by the Means of CFG Parser	Vitalii Vrublevskyyi Oleksandr Marchenko Yelyzaveta Losieva	29
Tr. 5\P1.7	Analysis of Deep Metric Learning Approaches	Taras Lehinevych Andriy Glybovets	31
Tr. 5\P1.8	An algorithm for finding similar objects in an image	Yaroslav Linder Volodymyr Pichkur Volodymyr	98
Tr. 5\P1.9	Unsupervised anomaly detection in time series using LSTM-based autoencoders	Maksym M Veres Oleksandr Provotar Yaroslav Linder	100
Tr. 5\P1.10	About the calculation of fuzzy events probabilities by means of interval arithmetics	Oleksandr Provotar	113
Tr. 5\P1.11	Analysis of simulation methods for fractional Brownian motion in the problems of intelligent systems design	Anatolii Pashko Iryna Rozora Olga Vasylyk Tetiana Oleshko Olga Lukovych	123

Tr. 5\P1.12	Estimates of solution convergence dynamical processes in neuronet with time delay	Andriy Shatyрко Denys Khusainov Josef Diblik	129
Tr. 5\P1.13	Modeling of agency problems in complex decentralized systems under information asymmetry	Vasyl Gorbachuk, Maxym Dunaievskiy, Seit-Bekir Suleimanov	193
Tr. 5\P1.14	<i>Optimization of functions of two variables by deformed stars method</i>	Vitaliy E. Snytyuk, Maryna Antonevych, Anna Didyk	213
Tr. 5\P1.15	Implementing alternative communication using a limited number of simple sign language gestures	Ruslan Bahrii Olexander Barmak Iurii Krak Veda Kasianiuk	16 <i>poster</i>
Tr. 5\P1.16	Simplified model for recognition facial emotions	Olexander Barmak Iurii Krak Eduard Manziuk Oleg Kalyta	22 <i>poster</i>
Tr. 5\P1.17	Nonparametric Methods of Authorship Attribution in Classic and Modern Literature	Andrii Yaroshevskiy Dmitriy Klyushin	74 <i>poster</i>
Tr. 5\P1.18	Block-diagonal approach for Non-Negative Linguistic Matrix and Tensor Factorization	Emil Nasirov	153 <i>poster</i>
Tr. 5\P1.19	Multiblock ADMM in machine learning	Vladyslav Hryhorenko, Dmitriy Klyushin, Sergey Lyashko	156 <i>poster</i>
Tr. 5\P1.20	Intellectual Methods of Estimation of Intending Primary School Teachers' Foreign Language Communicative Competence	Anatolii Pashko Iryna Pinchuk	157 <i>poster</i>
ACCEPTED PAPERS, TOTAL		20	
SUBMITTED PAPERS, TOTAL		29	
ACCEPTANCE RATE		0.69	

Track 5\P2

10.00 - 19.00 – Track 5\P2 (*Institute of Continuing Education of Taras Shevchenko National University of Kyiv, Vasylykivska Str., 36, Kyiv, room 112*).

Moderator:

Prof. Vitaliy Y. Snytyuk, Taras Shevchenko National University of Kyiv, Ukraine.

Prof. Viktor Morozov, Taras Shevchenko National University of Kyiv, Ukraine.

Secretary:

Prof. Kateryna Kolesnikova, Taras Shevchenko National University of Kyiv, Ukraine.

Track ID – 5\P2	Track Title	Author	Number of accepted papers
Tr. 5\P2.1	Team Behaviour Model as a Tool for Determining the Project Development Trajectory	Olha Sherstiuk, Oleksii Kolesnikov, Dmytro Lukianov	6
Tr. 5\P2.2	Forecasting of a Lifecycle of the Projects of Production of Biofuel Raw Materials With Consideration of Risks	Anatoliy Tryhuba, Vitalij Boyarchuk, Inna Tryhuba Oksana Ftoma	9
Tr. 5\P2.3	Research of the Impact of Changes Based on External Influences in Complex IT Projects	Viktor Morozov, Olena Kalnichenko, Anna Kolomiets	95
Tr. 5\P2.4	Modeling of Decision Making Strategies In Management of Steelmaking Processes	Olga Mezentseva, Kateryna Kolesnikova, Olena Savielieva	124
Tr. 5\P2.5	Application of Fuzzy TOPSIS Method in Group Decision-Making for Ranking Political Parties	Liliia Martynova, Galyna Kondratenko, Yuriy Kondratenko, Ievgen Sidenko	163
Tr. 5\P2.6	Digital optimization of portfolio with market restrictions	Victor Kulian, Marina Korobova, Olena Yunkova	139
Tr. 5\P2.7	On Asymptotic Merging of Nodes Set for Stochastic Networks with General Service	Hanna Livinska, Eugene Lebedev	159
Tr. 5\P2.8	Complementary Neural Networks for Managing Innovation Projects	Sergey Bushuyev, Igbal Babayev, Jahid Babayev, Boris Kozyr	21

Tr. 5\P2.9	Transformation of the International Project Management Association Project Managers Individual Competencies Model	Dmytro Lukianov, Krystsina Mazhei, Viktor Gogunskii	160
Tr. 5\P2.10	Digitalisation HR-management Used Bi-adaptive and Foresight Models	Alexander Timinsky, Borys Lysytsin, Lyudmila Chernova, Liubava Chernova	173
Tr. 5\P2.11	Forecasting time and cost of the jobs in network models based on fuzzy linguistic estimates	Yuri Samokhvalov	208 <i>poster</i>
Tr. 5\P2.12	Sequential A/B testing	Yana Bondarenko	68 <i>poster</i>
Tr. 5\P2.13	Use of Discrete and Continuous Markov Chains for System Absorbing States	Tetiana Olekh, Victor Gogunskii, Kateryna Kolesnikova	121 <i>poster</i>
Tr. 5\P2.14	Using a Neural Network Method to Solve the Problem of Automatic Generation of Vacations	Vladimir Miedviediev, Serhii Tsololo, Yuliia Dikova	142 <i>poster</i>
Tr. 5\P2.15	Optimal Threshold Strategies for Retrial Systems With Queue	Iryna Usar, Eugene Lebedev, Igor Makushenko, Michael Sharapov	111 <i>poster</i>
Tr. 5\P2.16	A New Two-Step Proximal Method for Equilibrium Problems in Hadamard Spaces	Yana Vedel, Vladimir V. Semenov, Kateryna Golubeva	168 <i>poster</i>
ACCEPTED PAPERS, TOTAL		<i>16</i>	
SUBMITTED PAPERS, TOTAL		<i>27</i>	
ACCEPTANCE RATE		<i>0.59</i>	

20th December 2019

10.00 - 12.00 – Plenary reports Tracks - Top articles and authors (*Assembly Hall, Institute of Continuing Education of Taras Shevchenko National University of Kyiv, Vasylykivska Str., 36, Kyiv.*)

Moderator:

Prof. Anatoly V. Anisimov, Taras Shevchenko National University of Kyiv, Ukraine.

Prof. Oleksandr Yudin, Taras Shevchenko National University of Kyiv, Ukraine.

Secretary:

Dr. Olena Kapustian, Taras Shevchenko National University of Kyiv, Ukraine.

Track ID	Track Title Special track	Author	Number of accepted papers
Tr. 1	Verifiable Arithmetic Computations Using Additively Homomorphic Tags	Anatoly V. Anisimov, Andrey Novokshonov	137
Tr. 2	Network model of IT-infrastructure resource management	Serhii Kryvyi, Sergiy D. Pogorilyy, Yuriy V. Boyko	27
Tr.4	Cloud resource management with a hybrid virtual machine consolidation approach	Eduard Zharikov, Sergii Telenyk, Oleksandr Rolik, Yevhenii Serdiuk	18
Tr. 5\P1	Intellectualization of computation for mathematical modeling by using neural networks	Alexander Khimich, Volodymyr Sydoruk, Pavlo Yershov	211
Tr. 5\P2	Team Behaviour Model as a Tool for Determining the Project Development Trajectory	Olha Sherstiuk, Oleksii Kolesnikov, Dmytro Lukianov	6

12.00-12.30– Coffee break.

13.00-16.00 – Excursion to the Museum of History of the University (Main Building, Volodymyrska Str., 60, Kyiv)

16.30-19:00 – Farewell Dinner (Canteen, Institute of Continuing Education of Taras Shevchenko National University of Kyiv, Vasylykivska Str., 36, Kyiv)